



SILENT *Piano*TM
SG2

Owner's manual

SPECIAL MESSAGE SECTION

This product utilizes an external power supply (adaptor). DO NOT connect this product to any power supply or adaptor other than one described in the manual, on the name plate, or specifically recommended by Yamaha.

WARNING:

Do not place this product in a position where anyone could walk on, trip over, or roll anything over power cords or other connecting cords. The use of an extension cord is not recommended! If you must use an extension cord, the minimum wire size for a 25' cord (or less) is 18 AWG.

NOTE:

The smaller the AWG number, the larger the current handling capacity. For longer extension cords, consult a local electrician.

This product should be used only with the components supplied or; a cart, rack, or stand that is recommended by Yamaha. If a cart, etc., is used, please observe all safety markings and instructions that accompany the accessory product.

SPECIFICATIONS SUBJECT TO CHANGE:

The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

Do not attempt to service this product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

IMPORTANT:

The louder the sound, the shorter the time period before damage occurs.

Some Yamaha products may have benches and/or accessory mounting fixtures that are either supplied as a part of the product or as optional accessories. Some of these items are designed to be dealer assembled or installed. Please make sure that benches are stable and any optional fixtures (where applicable) are well secured BEFORE using. Benches supplied by Yamaha are designed for seating only. No other uses are recommended.

NOTICE:

Service charges incurred due to lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

ENVIRONMENTAL ISSUES:

Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

Disposal Notice:

Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc. If your dealer is unable to assist you, please contact Yamaha directly.

PLEASE KEEP THIS MANUAL

Getting Started

Contents

Chapter 1 Getting Started	3	Chapter 3 Recording and Playback.....	13
Accessories	3	Recording a Performance	13
Installation	3	Playing Back the Song Recorded in the Internal Memory	14
Part Names	4	Connecting the USB Memory	15
Attaching the Headphones Hanger	6	Saving Recorded Data to the USB Memory	16
Setting the Auto Power-off Function	6	Playing Back Songs in the USB Memory	17
Connecting the AC Adaptor	7	Playing Back Demonstration Songs (Demonstration Mode).....	19
Chapter 2 To Begin Playing	8	Chapter 4 Connecting to Other Devices ..	21
Using the Silent Piano Function.....	8	Connecting to Other Audio Devices.....	21
Selecting Voices.....	9	Connecting to Other MIDI Devices.....	23
Adjusting the Brilliance.....	10	Chapter 5 Appendix	24
Setting the Amount of Reverb.....	11	Troubleshooting.....	24
Adjusting the Pitch (Tuning).....	11	The Error Chime.....	25
Setting the DDE (Dynamic Damper Effect)	12	Preset Voice List.....	26
Returning Settings to Their Default Configuration (Reset All)	12	Demonstration Song List.....	27
		MIDI Data Format (Program Change)	28
		MIDI File Playback Sequence.....	28
		Specifications.....	29

Accessories

- AC adaptor (PA-150 or an equivalent recommended by Yamaha) × 1
- Headphones × 1
- Headphones hanger × 1
- Attachment screws for headphones hanger × 2
- Owner's manual × 1

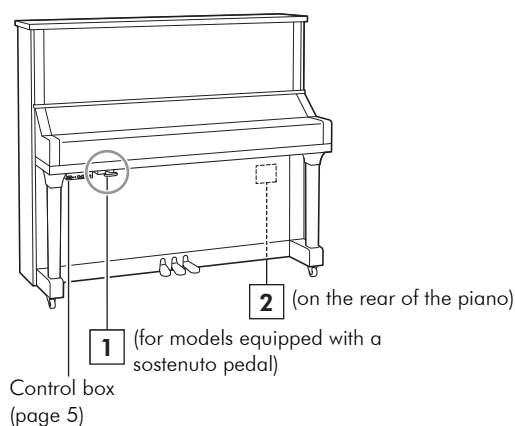
Installation

- Avoid placing this instrument in direct sunlight, in close proximity to heating equipment or other high-temperature areas, or in locations with a high degree of humidity.
- Avoid placing this instrument in dusty or dirty areas.
- Do not expose this instrument to spray or fumes.
- Use only the specified AC adaptor. Use of other AC adaptors may result in damage, overheating, or fire.

Part Names

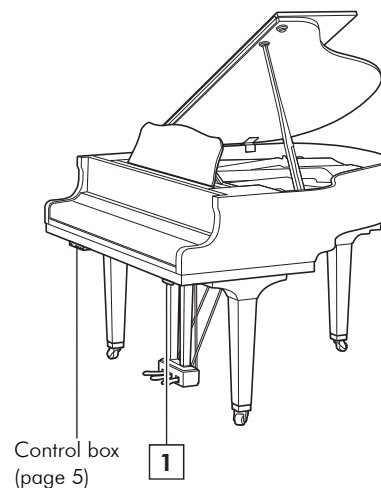
■ Piano

Upright piano



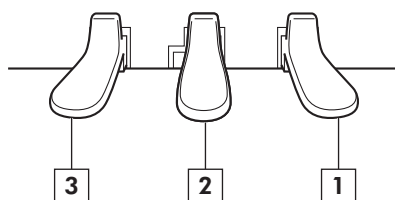
- 1 Silencing lever**
Activates the Silent Piano™ function.

Grand piano



- 2 DC12V jack (for upright pianos)**
Connect the supplied AC adaptor.

■ Pedals



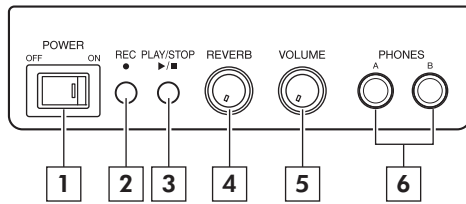
- 1 Damper pedal**
Sustains notes even after you release the keys. While performing with the piano voice, this recreates a sympathetic resonance occurs in adjacent strings on an acoustic piano (Dynamic Damper Effect).

- 2 Silencing pedal**
(For models not equipped with a sostenuto pedal)
Activates the Silent Piano™ function.

- 3 Shift pedal / soft pedal**
Softens the piano sound. While using the voices other than piano, you can use this pedal to switch between the normal voice and a variation (see page 9).

■ Control box

Front panel



1 POWER switch

Used to turn the digital piano on and off.

2 REC button

Places the instrument in record standby mode. This is a combination lamp and button. The manner in which the lamp is lit indicates the recording state of the unit.

3 PLAY/STOP button

Starts and stops playback. This is a combination lamp and button. The manner in which the lamp is lit indicates the current state of the unit.

4 REVERB knob

Adjusts the amount of reverb.

5 VOLUME knob

Adjusts the volume for both headphones simultaneously.

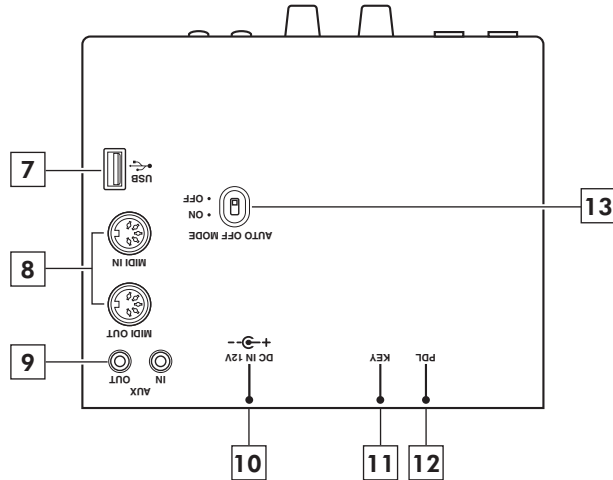
6 PHONES jacks

You can connect two stereo headphones, allowing you to share your playing with another person.

7 USB terminal

Insert USB memory here.

Bottom panel



8 MIDI IN/MIDI OUT jacks

Connect to the input / output jacks of external MIDI devices.

9 AUX IN/AUX OUT jacks

Connect to the input / output jacks of external audio devices.

10 DC IN 12V jack (for grand pianos)

Connect the supplied AC adaptor.

11 KEY jack

Key sensor jack.

12 PDL jack

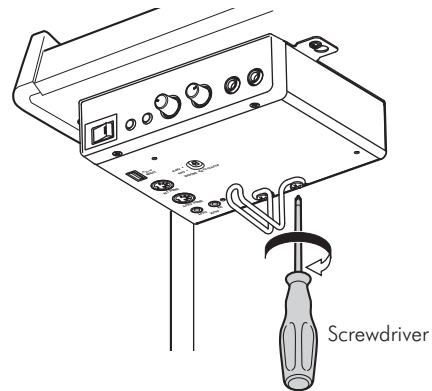
Pedal sensor jack.

13 AUTO OFF MODE switch

Activates or inactivates the auto power-off function. Set this switch to ON to turn the power off automatically if you do not operate the unit for 30 minutes.

Attaching the Headphones Hanger

Attach the hanger to the underside of the control box with the two screws supplied.



Setting the Auto Power-off Function

You can turn the power off automatically if you do not operate the unit for 30 minutes.

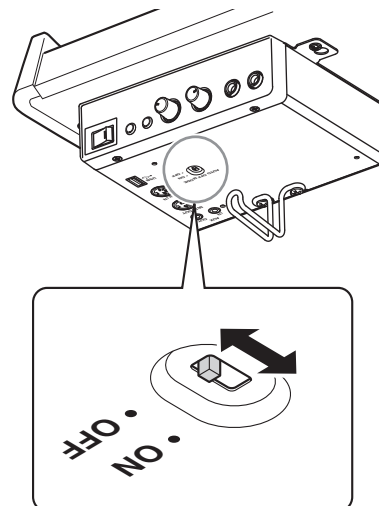
Set the AUTO OFF MODE switch at the bottom of the control box.

ON: Activates the auto power-off function. The unit is automatically turned off if you do not operate it for 30 minutes. While the auto power-off function is activated, turn the power off and on again with the POWER switch.

OFF: Inactivates the auto power-off function. Use the POWER switch to turn the power off.

Note

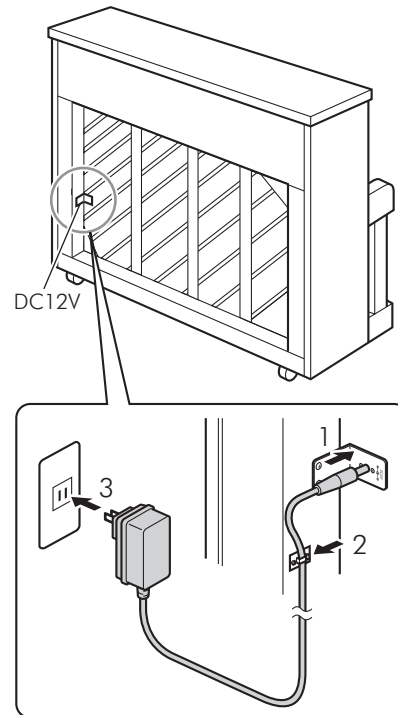
If you turn the power on while the AUTO OFF MODE switch is set to OFF, the PLAY/STOP lamp on the front of the control box lights up for 2 seconds.



Connecting the AC Adaptor

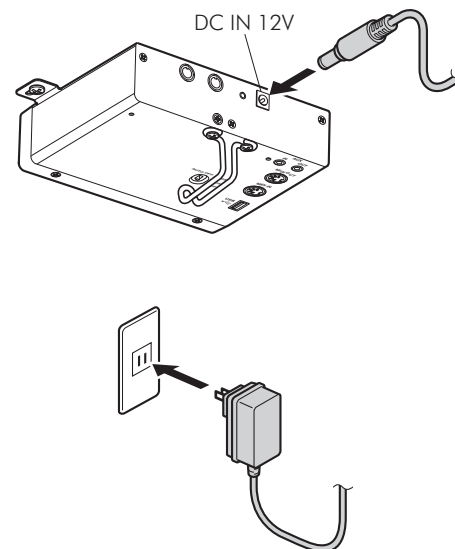
■ For Upright Pianos

- 1** Connect the AC adaptor to the DC12V jack at the rear of the piano.
- 2** Loop the cord through the hook on the piano, as shown.
- 3** Connect the AC adaptor to the AC wall outlet.



■ For Grand Pianos

- 1** Connect the AC adaptor to the DC IN 12V jack at the rear of the control box.
- 2** Connect the AC adaptor to the AC wall outlet.



Caution

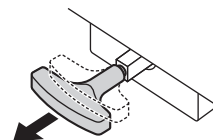
- Use the Yamaha PA-150 AC adaptor, or an equivalent recommended by Yamaha. Use of other AC adaptors may result in damage, overheating, or fire.
- Do not stretch the cord or bend its ends.
- Do not attempt to use the cord if it is stretched or if the ends of the cord have been bent. Attempting to do so may cause interruptions to the power supply.
- Always turn off the main unit power before disconnecting the AC adaptor.
- When you wish to move the Silent Piano, unplug the AC adaptor from the AC outlet and disconnect it from the DC12V jack at the rear of the piano, or the DC IN 12V jack at the rear of the control box before proceeding.
- Unplug the AC adaptor from the AC outlet if you do not intend to use the instrument for an extended period of time.

To Begin Playing

Using the Silent Piano Function

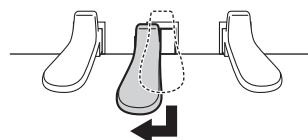
1 (For models equipped with a sostenuto pedal)

Pull the silencing lever towards you until you hear a click and feel the mechanism catch.



(For models not equipped with a sostenuto pedal)

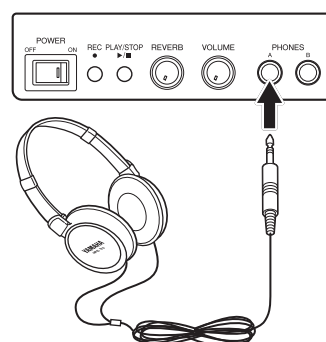
Press the center pedal and slide it to the left.



This prevents the hammers from actually striking the strings.

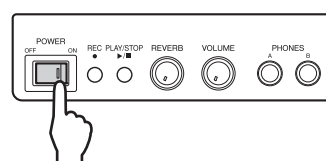
2 Plug the headphones into the PHONES jack.

You can use two sets of headphones simultaneously.

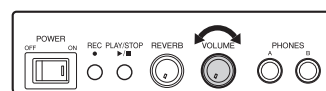


3 Turn the power on.

The POWER lamp lights green.
When the AUTO OFF MODE switch on the bottom of the control box is set to OFF, the PLAY/STOP lamp lights up for 2 seconds.



4 Adjust the volume with the VOLUME knob.



Caution

- The sound is not output properly if you hold down the keyboard while turning the power on. Remove your hand from the keyboard when turning the power on.
- When you connect two sets of headphones simultaneously, use the same type of headphones for optimum performance.
- The keying sound of the keyboard remains even though the Silent Piano function is activated.
- To prevent damage to your hearing, refrain from raising the volume to excessive levels, and do not use the headphones for extended periods of time.
- Do not pull the headphone cord or apply excessive force on the plug. This can damage the headphone and lead to sound output malfunction.

Selecting Voices

When using the Silent Piano function, you can use the internal voices of this unit to perform with voices other than that of a piano.

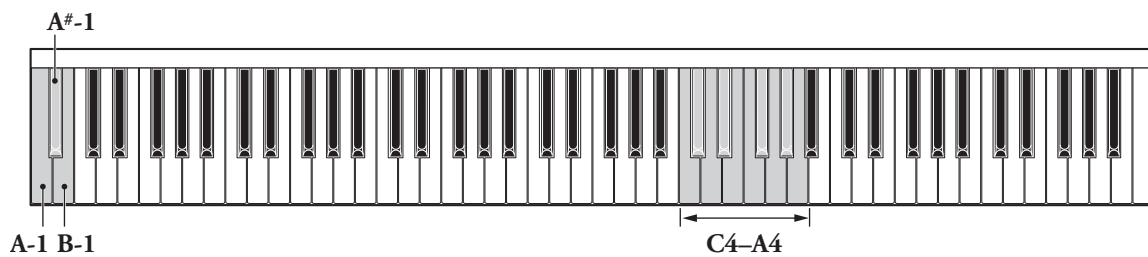
Voice name	Setting method
Piano (default setting)	Hold down the A-1, A#-1, and B-1 keys and press C4.
Harpsichord	Hold down the A-1, A#-1, and B-1 keys and press D4.
Vibraphone	Hold down the A-1, A#-1, and B-1 keys and press E4.
Pipe organ	Hold down the A-1, A#-1, and B-1 keys and press F4.
Celesta	Hold down the A-1, A#-1, and B-1 keys and press G4.
Strings	Hold down the A-1, A#-1, and B-1 keys and press A4.
Electric piano 1	Hold down the A-1, A#-1, and B-1 keys and press C#4.
Electric piano 2	Hold down the A-1, A#-1, and B-1 keys and press D#4.
Jazz organ	Hold down the A-1, A#-1, and B-1 keys and press F#4.
Choir	Hold down the A-1, A#-1, and B-1 keys and press G#4.

Note

- Select voices with the unit turned on.
- Turning the instrument off resets voice selection, which returns to piano the next time you turn the unit on.
- See “Preset Voice List” on page 26 for details on voices.
- You can also select two voices simultaneously for performance. See “Dual voice” on page 10.

Caution

- You can change voices while performing. This function is not available for songs that are being played back.
- For voices other than piano, the shift/soft pedal alters the voice variation rather than dampening the tone.
- For voices other than piano, the volume of the sound for the three lowest keys has been lowered intentionally.



■ **Voice variation**

This unit provides variations on voices for your enjoyment when playing other voices than piano. See “Preset Voice List” on page 26 for details on variations.

The voice alternates between normal and a variation every time you press the shift/soft pedal (the pedal at far left).

The PLAY/STOP lamp lights briefly when you change between a normal voice and its variation. Green indicates the normal voice, while orange indicates that a variation has been selected.

Note

There are variations available for each voice. Turning off the unit resets variation selection.

■ **Dual voice**

This function allows you to combine two voices while playing.

Press two keys simultaneously to select two voices.

Caution

As the dual voice function uses two voices for every note played, the number of notes you can play simultaneously is reduced by half.

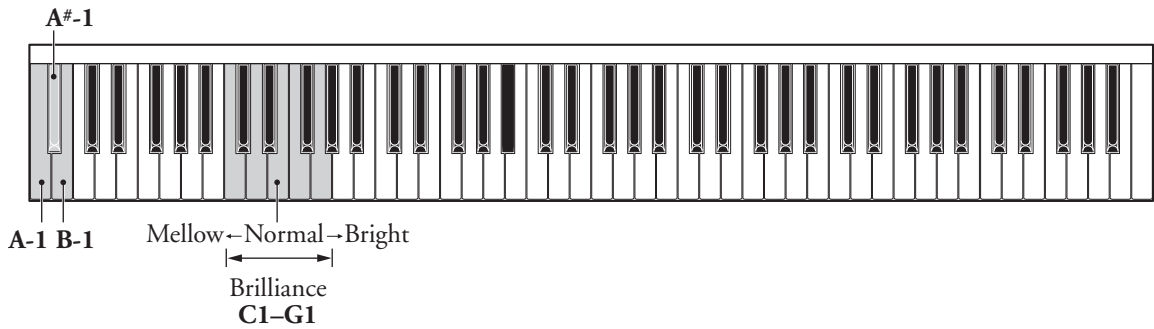
Adjusting the Brilliance

You can adjust the timbre brilliance of the sound from mellow to bright.

Operation	Setting method
Adjusting the brilliance (5 levels)	Hold down the A-1, A#-1, and B-1 keys and press C1, D1, E1, F1 or G1. (The normal setting is E1. C1 is the mellowest brilliance setting and G1 is the brightest brilliance setting. The default setting is E1.)

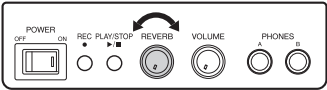
Note

This setting is applied to all voices, and does not change when you turn the unit off.



Setting the Amount of Reverb

Reverb adds echo to the sound to give it more fullness and reverberation. Use the REVERB knob to adjust the depth (the degree to which the reverb effect is applied to the sound). To turn the reverb off, set the control in the far left position.

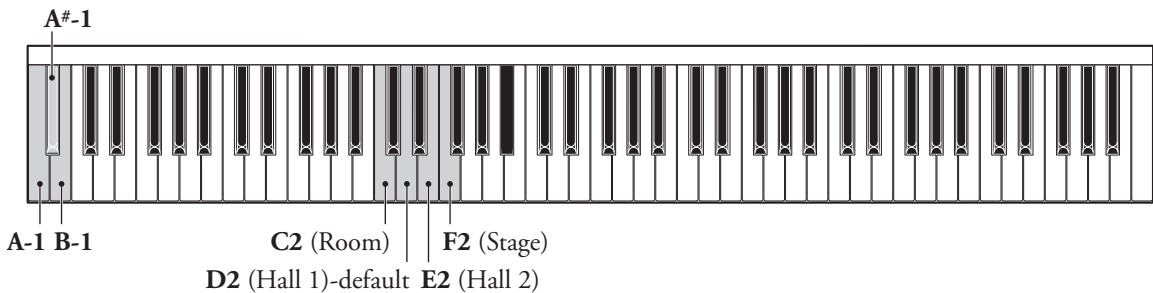


You can also change the type of reverb to apply.

Reverb type	Effect	Setting method
Room	Reverberation similar to that heard in a normal room	Hold down the A-1, A#-1, and B-1 keys and press C2.
Hall 1 (default setting)	Reverberation similar to that heard in a small concert hall	Hold down the A-1, A#-1, and B-1 keys and press D2.
Hall 2	Reverberation similar to that heard in a large concert hall	Hold down the A-1, A#-1, and B-1 keys and press E2.
Stage	Reverberation similar to that heard on a stage	Hold down the A-1, A#-1, and B-1 keys and press F2.

Note

The reverb type reverts to its default setting when you turn the power off.



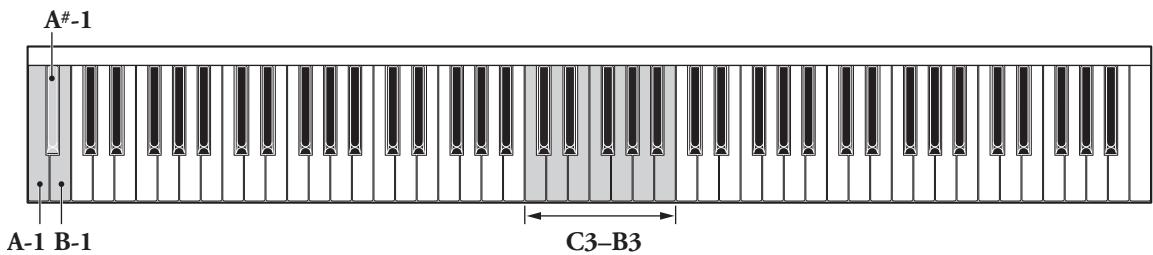
Adjusting the Pitch (Tuning)

The pitch of this instrument is set so that A3=440Hz. You can fine tune the pitch up or down 65 cents (100 cents is equal to 1 semitone).

Operation	Setting method
Raise the pitch	Hold down the A-1 and B-1 keys and press any one of the keys between C3 and B3.
Lower the pitch	Hold down the A-1 and A#-1 keys and press any one of the keys between C3 and B3.
Return to default tuning	Hold down the A-1, A#-1, and B-1 keys and press any one of the keys between C3 and B3.

Note

The pitch setting is stored when you turn the instrument off.



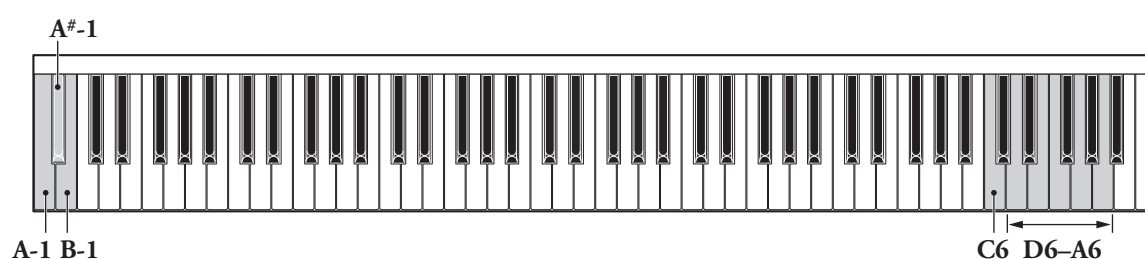
Setting the DDE (Dynamic Damper Effect)

The DDE (Dynamic Damper Effect) recreates the subtle resonances that occur when you depress the damper pedal on an acoustic piano. You can set the DDE to suit your preferences.

Operation	Setting method
Turn the DDE off	Hold down the A-1, A#-1, and B-1 keys and press C6.
Turn the DDE on (5 levels)	Hold down the A-1, A#-1, and B-1 keys and press D6, E6, F6, G6 or A6. (A6 is the deepest DDE setting. The default setting is E6)

Note

- The DDE setting does not change when you turn the power off.
- Even when the DDE is turned off, the sound continues as if you had pressed the damper pedal, but without any resonating effect.

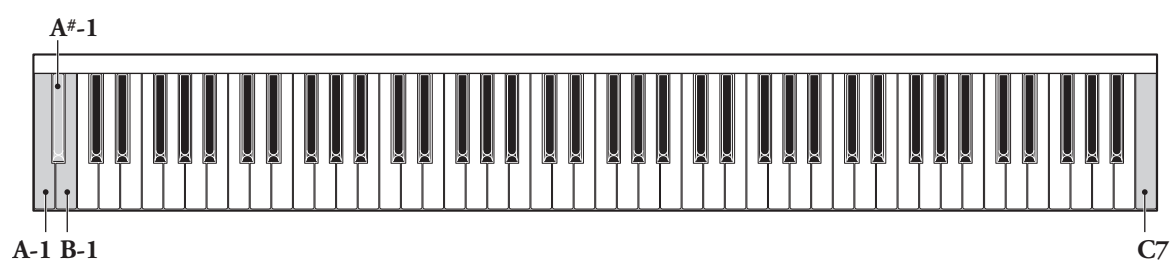


Returning Settings to Their Default Configuration (Reset All)

You can reset all settings to their default state.

Hold down the A-1, A#-1, and B-1 keys and press C7 for approximately 1 second, then release all the keys.

This returns voice variation, brilliance, reverb type, pitch, and DDE to their default settings.



Recording and Playback

Recording a Performance

You can record one song in the internal memory of this unit.

Note

- The recording function can store approximately 65 kilobytes (equal to approximately 21,000 notes), which equates to a song approximately 25 minutes in length, or 5 minutes in length for a song with a high tempo that contains many notes.
- The recording also stores information on the voice selected during performance.
- The data recorded is preserved even if you turn the power off or reset all parameters.

Caution

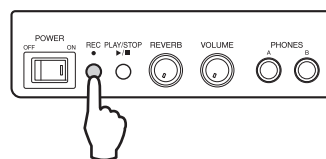
- Starting recording will delete the previously recorded song (the previous recording is not deleted if you cancel the recording without playing anything when the unit is in record standby mode). Please back up any data you do not want to delete to USB memory. See "Saving Recorded Data to the USB Memory" on page 16 for details.
- You cannot use the recording function when USB memory is connected. Please remove the USB memory before recording.

1 Press the REC button.

The unit changes to record standby mode, the REC lamp lights red, and the PLAY/STOP lamp blinks green.

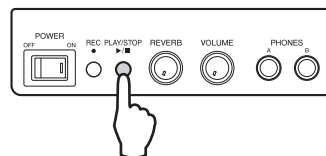
Note

Press the REC button again to cancel record standby mode and return the unit to its normal state.



2 Press the PLAY/STOP button.

The PLAY/STOP lamp lights green and recording starts.



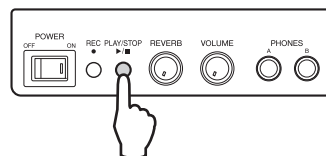
3 Begin playing.

During recording, a chime sounds when there is little storage space remaining in internal memory. As the amount of storage remaining decreases, the chime becomes faster, and the unit begins to write data automatically.

4 Stop playing, and press the PLAY/STOP button.

You can also press the REC button to stop recording. The REC lamp blinks quickly, and the unit begins to write data. The REC lamp stops flashing when the unit finishes writing data.

The data writing operation may take a few tens of seconds.



Caution

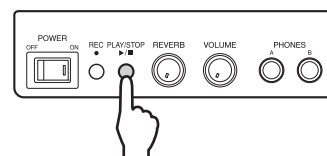
Do not turn this unit off while the REC lamp is flashing as this may corrupt the data or damage internal memory.

Playing Back the Song Recorded in the Internal Memory

This unit can playback demonstration songs and recorded data.

Press the PLAY/STOP button.

The PLAY/STOP lamp lights green and playback starts.



To stop playback

Press the PLAY/STOP button during playback.

To pause playback

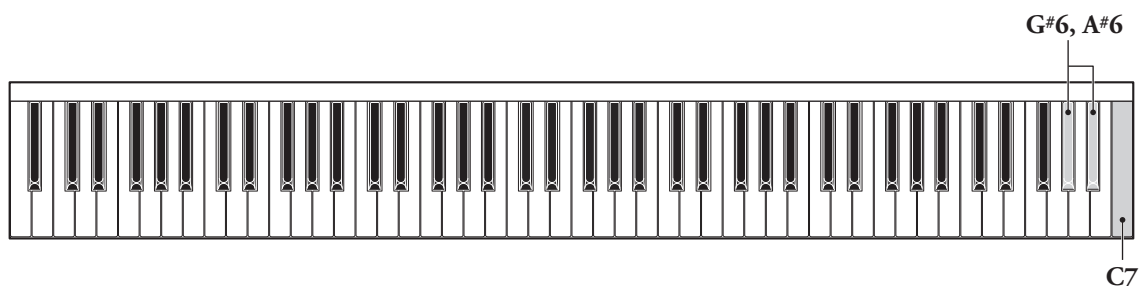
Press C7 during playback. The PLAY/STOP lamp blinks.

Press C7 or the PLAY/STOP button to restart playback.

To fast-forward

Press A#6 while holding down G#6 during playback or while playback is paused. Playback fast-forwards and the PLAY/STOP lamp blinks while you press A#6.

Release A#6 to return the unit to its previous state (playback, or with playback paused).



Note

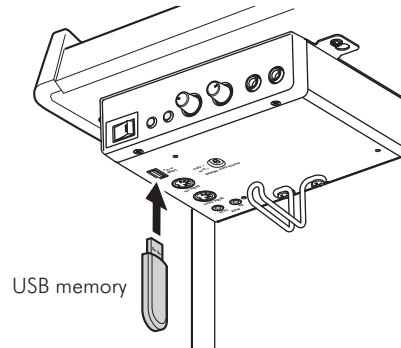
- The REC button does not function during playback or while playback is paused.
- When USB memory is connected to the unit, the data stored in USB memory is played back. See "Playing Back Songs in the USB Memory" on page 17.
- The chime sounds three times in succession if there is no song present.

Connecting the USB Memory

Connecting commercially available USB memory to the unit allows you save recording data, and playback songs stored on the memory.

Insert the USB memory into the USB terminal at the bottom left of the control box.

The unit automatically begins checking the contents of the USB memory. During checking the PLAY/STOP lamp blinks rapidly, changing to a pale orange when the process is complete.



Caution

- Do not remove the USB memory or turn the power on or off during data transfer, as breakage may result.
- Do not insert and remove the USB memory too frequently as breakage may result.
- Be careful not to bump the USB memory with your legs when it is connected to the unit.
- Do not insert any objects other than the USB memory into the USB terminal, as it may become unusable.
- Check that the USB memory is free of memory and software protection before attempting to use it, as these kinds of protection will prohibit access to the memory.
- This unit is USB 1.1 compliant. You can also connect USB 2.0 devices to it, however data will be transferred at USB 1.1 speeds.

Saving Recorded Data to the USB Memory

You should back up important data to a storage medium such as a computer, in addition to saving it on USB memory. Saving data to USB memory without backing it up other storage media means that there is a risk of losing the data through jarring and shocks.

1 Insert the USB memory into the unit.

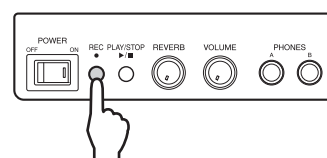
The PLAY/STOP lamp flashes orange, and lights pale orange when the unit has completed checking the memory.

2 Press the REC button.

The unit changes to transfer standby mode, the REC lamp lights red, and the PLAY/STOP lamp blinks orange.

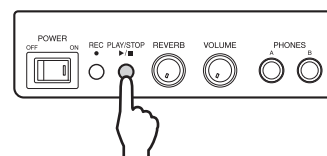
Note

Press the REC button once more to cancel transfer standby mode and return the unit to its normal state.



3 Press the PLAY/STOP button.

The PLAY/STOP lamp flashes rapidly, and data begins to transfer from internal memory to the USB memory. As the data format is also changed during transfer, the transfer process may take some time (3 to 4 minutes for a 65 kilobyte file). The REC lamp goes out and the PLAY/STOP lamp lights pale orange when transfer is complete.



Note

- The data is stored as "USERSONG**.MID" in a folder named "USER FILES" on the USB memory. You can store up to 50 songs in this manner. "***" can be any number from 00 to 49, and increases sequentially as files are saved.
- The unit will inform you that it cannot save any further songs when songs accumulate and the filenames reach "USERSONG49.MID".
- Attempting to save files when there are one or more files with the file names "USERSONG50.MID" through "USERSONG99.MID" in the folder will result in an error, and you will be unable to save the data.
- You cannot delete files from this unit. Please connect the USB memory to a computer if you want to delete a file.

Caution

When transferring data from the USB memory to a computer, previously saved files may be overwritten if they have the same file names as the files being transferred. If you do not want to overwrite these files, take measures to prevent this from happening, such as changing the names of the files.

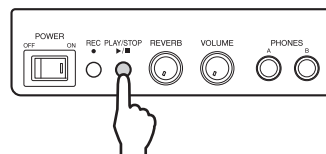
Playing Back Songs in the USB Memory

Carrying out playback operations (see page 14) when the USB memory is inserted into this unit plays back the last saved song in the USB memory. You can also play back all songs in the USB memory from the start, or select the song for playback.

■ To play back the last saved song in the USB memory

With the USB memory inserted into this unit, press the **PLAY/STOP** button.

If no saved file is found in the USB memory, and another playable file (Standard MIDI File) exists, the unit begins playback of that file. If no such file exists, the unit returns to its normal state.

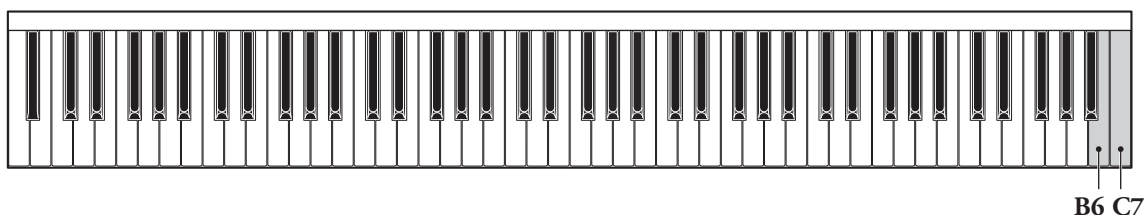


■ To play back all songs in the USB memory

1 With the USB memory inserted into this unit, hold down B6 and C7 (the two white keys at far right of the piano keyboard) while turning the unit on.

2 Release the keys 1 to 2 seconds after turning the unit on.

Playback automatically begins at the song first saved to the USB memory.



To quit the song playback

Switch the unit off and then on again.

To select the song for playback (direct song selection)

Hold down the A-1 key, and press any of the keys from C0 through to C#4 corresponding to the number of a song.

- "USERSONG**.MIDI" files in the "USER FILES" folder in the USB memory are assigned to the keys from C0 through to C#4, starting from the left.
- Pressing any key other than those listed above does not select a song for playback.
- If you select a song when playback is stopped, it will be selected the next time you start playback.

To change songs

To move to the previous song press F#6. To move to the next song press A#6.

To fast-forward

Press A#6 while holding down G#6 during playback or while playback is paused. You can fast forward while the unit is outputting sound.

To pause playback

You can pause playback and restart it from where the song was paused.

Press C7 during playback. Press C7 to start playback again. While playback is paused, no keys will function other than C7 and the PLAY/STOP button (play or pause).

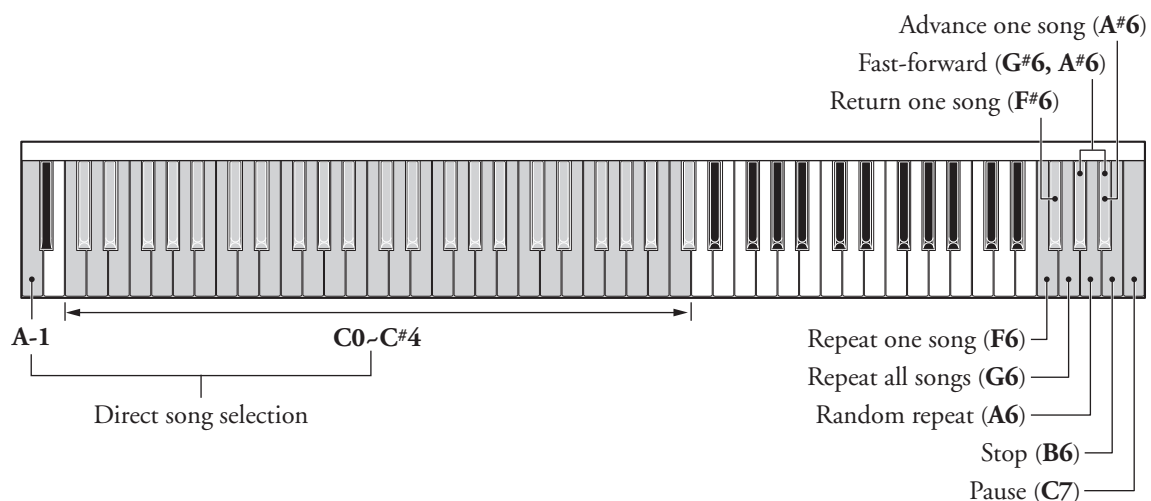
To stop playback

You can stop playback and start it from the first saved song.

Press B6 or the PLAY/STOP button during playback. Press the PLAY/STOP button to start playback again.

To set the unit in repeat mode

Press F6 to repeat playback of a single song, G6 to repeat playback of all songs, or A6 to repeat playback of all songs in random order. The default setting is to repeat playback of all songs.



Note

- The unit plays back a maximum of 50 songs in the USB memory.
- Playback occurs in order of the number (00 – 99) in the "****" section of the "USERSONG**.MIDI" files stored in the "USER FILES" folder in the USB memory, beginning with the lowest numbered file (usually this will mean that songs are played back in the order data was transferred to the USB memory). When the USB memory contains less than 50 songs, the unit looks for MIDI files contained in the "USER FILES" folder, the root directory, and other folders (up to two levels deep), and plays them back in the order they were transferred to the USB memory.
- The chime sounds three times in succession if there is no song present in the USB memory.
- See "MIDI File Playback Sequence" on page 28 for details on playback order.
- To record to this unit or save recording data to the USB memory, switch the unit off and then on again.

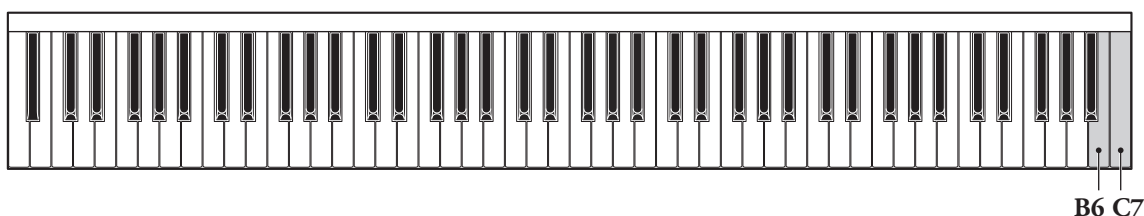
Playing Back Demonstration Songs (Demonstration Mode)

You can play back any of the demonstration songs stored in this unit (50 greats for the Piano).

1 Hold down B6 and C7 (the two white keys at far right of the piano keyboard) while turning the unit on.

2 Release the keys 1 to 2 seconds after turning the unit on.

Playback automatically begins at the first song.



To exit demonstration mode

Switch the unit off and then on again.

To select the song for playback (direct song selection)

Hold down the A-1 key, and press any of the keys from C0 through to C#4 corresponding to the number of a song.

- See “Demonstration Song List” on page 27 for the songs assigned to each key.
- Pressing any key other than those listed above does not select a song for playback.
- If you select a song when playback is stopped, it will be selected the next time you start playback.

To change songs

To move to the previous song press F#6. To move to the next song press A#6.

To fast-forward

Press A#6 while holding down G#6 during playback or while playback is paused. You can fast forward while the unit is outputting sound.

To pause playback

You can pause playback and restart it from where the song was paused.

Press C7 during playback. Press C7 to start playback again. While playback is paused, no keys will function other than C7 and the PLAY/STOP button (play or pause).

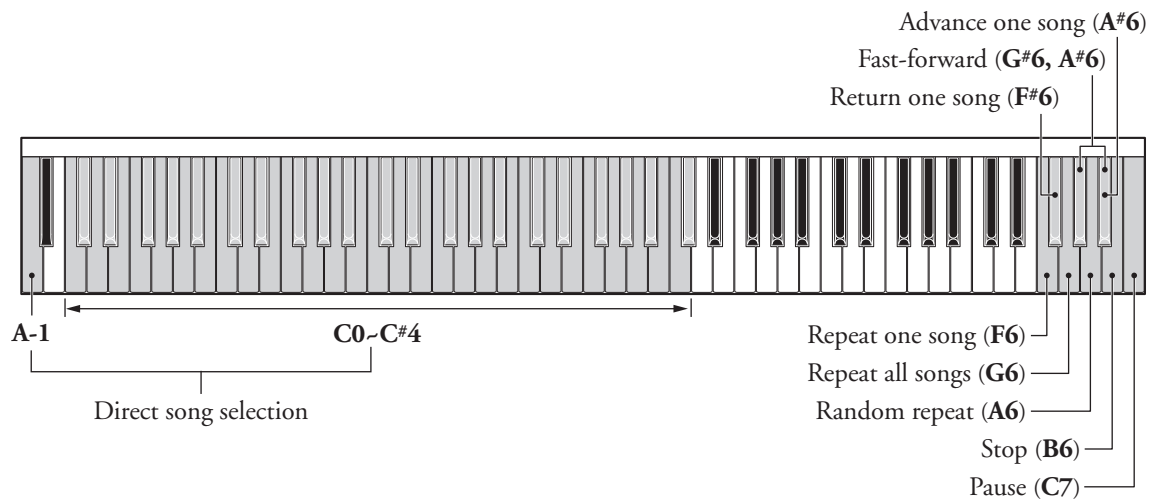
To stop playback

You can stop playback and start it from the first demonstration song.

Press B6 or the PLAY/STOP button during playback. Press the PLAY/STOP button to start playback again.

To set the unit in repeat mode

Press F6 to repeat playback of a single song, G6 to repeat playback of all songs, or A6 to repeat playback of all songs in random order. The default setting is to repeat playback of all songs.



Note

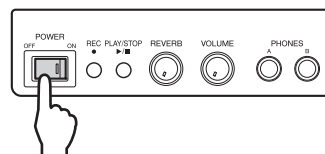
- You can use the PLAY/STOP button on the control box to start and stop playback.
- The unit may sometimes fail to enter demonstration mode, depending on the timing with which you released the keys.
- You cannot record to this unit or save recording data to the USB memory in demonstration mode. To record or save, switch the unit off and then on again.
- You cannot transfer the demonstration songs to the USB memory.

Connecting to Other Devices

Connecting to Other Audio Devices

Caution

Be sure to turn off the power to both devices before attempting to connect this unit to another device.



Note

The AUX IN/AUX OUT jack on this unit is a stereo mini jack. If your connection cable is not compatible, you will need to use an adaptor. Please use a nonresistant cable and adaptor.

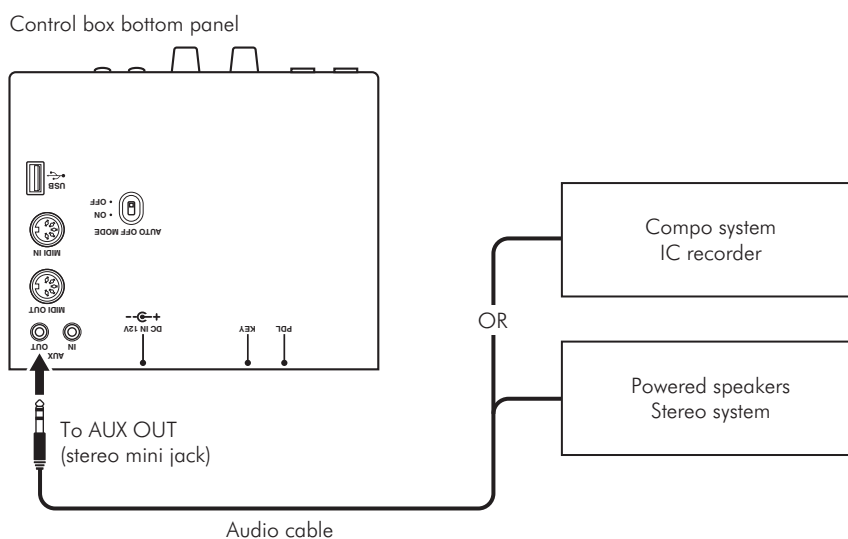
■ Using AUX OUT

When connected to a compo system or IC recorder:

You can record performances played using this unit's Silent Piano function.

When connected to powered speakers or a stereo system:

You can listen to performances played using this unit's Silent Piano function. The signal output from this jack is the same sound as that heard when listening through headphones.

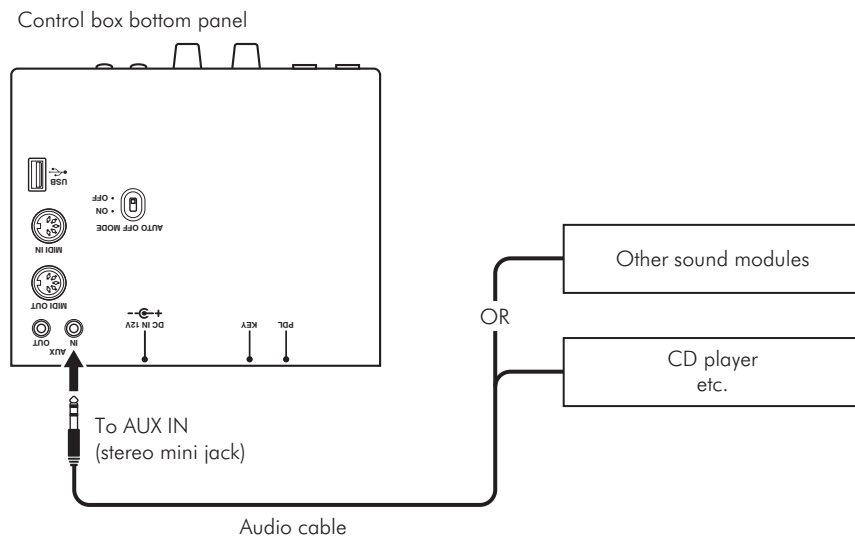


■ Using AUX IN

When connected to other sound modules or playback devices (such as CD players):

You can use the Silent Piano function together with the sound received from the connected devices.

You can use the VOLUME knob on this unit to simultaneously adjust the volume of its electronic sound and the sound received through its AUX IN jack. Adjust the output volume on the connected device to balance the sounds.



Caution

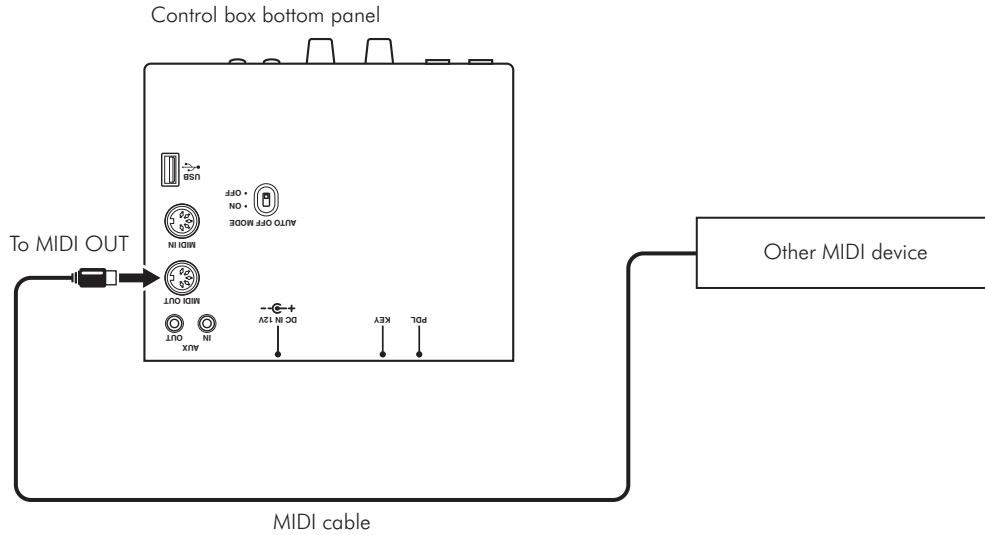
Do not connect the output jack of an analog recording device to this unit's AUX IN jack if you have connected this unit's AUX OUT jack to the input jack of the same recording device. Doing so will cause feedback of the audio signal which may damage both components.

Connecting to Other MIDI Devices

■ Using MIDI OUT

When connected to other MIDI device:

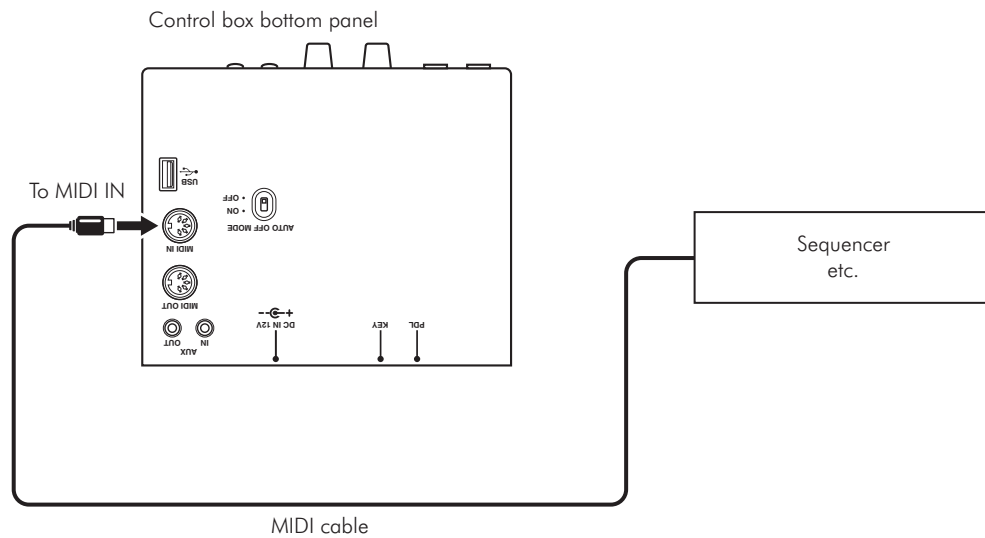
You can reproduce this unit's Silent Piano performances using sound modules such as synthesizers and other MIDI devices.



■ Using MIDI IN

When connected to a sequencer:

You can use the sound module of this unit to reproduce performance data received from connected devices.



Note

In addition to performance data for the keyboard and pedals, information on voice changes, and reverb depth is also exchanged. MIDI data is transmitted on channel 1, and received on both channel 1 and 2.

Appendix

Troubleshooting

If you have problems with your Silent Piano, here are a few troubleshooting tips. If you cannot solve the problem easily yourself, consult your Yamaha piano dealer. DO NOT attempt to repair the piano or the AC adaptor yourself.

🔊 **The unit is turned on but does not emit sound.**

- The AC adaptor may not be plugged in correctly. Insert the AC adaptor firmly into the DC12V jack or the DC IN 12V jack and AC outlet.
- The VOLUME knob may be turned to the far left position. Adjust the setting to an optimal level. The unit outputs standard volume when the volume control is set to the 3 o'clock position.

🔊 **The power lamp lights but the instrument does not emit any sound, and the pedal has no effect.**

- The key sensor or the pedal sensor on the rear panel of the control box may not be connected correctly. Insert the KEY and PDL plugs firm into their respective jacks on the control box (labeled KEY and PDL on the bottom of the control box).

🔊 **The acoustic piano emits sound when I am using the Silent Piano function to play.**

- Playing with extreme force may result in sound being emitted from the acoustic piano. Please moderate the strength of your playing.

🔊 **The balance varies when listening through commercially available headphones.**

- Headphone properties differ depending on their type, so different headphones may have different balance characteristics.

🔊 **The volume varies when listening through commercially available headphones.**

- Headphone properties differ depending on their type, so different headphones may have different volume characteristics.

🔊 **I can hear a rattling sound from the piano body when using it in Silent Piano mode.**

- This is not a fault. This is the sound of the acoustic piano's keystroke.

🔊 **When I play a rapid series of notes in Silent Piano mode, a loud sound is emitted that is not part of the performance.**

- This is not a fault. The structure of the Silent Piano causes this to occur in some cases.

🔊 **No reverb effect is applied to the sound.**

- The REVERB knob may be set to the extreme left. Rotate the knob to the right to apply an appropriate amount of reverb (see page 11).

🔊 **The sound lingers excessively (There is too much reverb applied to the sound).**

- The reverb and DDE may be set at an excessive level. Set these parameters to an appropriate level (see pages 11 and 12).

🔊 **The pitch of this instrument is different to that of other instruments.**

- You can adjust the pitch of this unit to match that of other instruments (see page 11).

🔊 **Panel buttons are lit when I am not playing or recording.**

- The buttons light dimly when USB memory is connected in the USB terminal (see pages 15 and 17).

 **The USB memory does not respond.**

- Remove the USB memory from the unit and then reinsert it.
- Check that the PLAY/STOP lamp blinks orange when you insert the USB memory. If the lamp does not flash, the USB memory may be broken (see page 15).

 **When I turn the power on with the instrument in demonstration mode and USB memory inserted into the USB terminal, the internal demonstration songs play for a short while before playback of the songs in stored in the USB memory begins.**

- This is not a fault. This unit may take some time to recognize certain kinds of USB memory. The internal demonstration songs play during the recognition process.

 **USB data does not play back.**

- This is not a fault. In some cases the MIDI file for the song may be too large for the unit to load, resulting in an error.

 **The unit is not turned on even though the POWER switch is set to ON.**

- The auto power-off function is activated. Turn the power off and on again with the POWER switch (see page 6).

The Error Chime

In the event of the following errors occurring, the REC and PLAY/STOP lamps blink rapidly and a chime sounds 3 times in succession. Press the REC or PLAY/STOP buttons to stop the error chime.

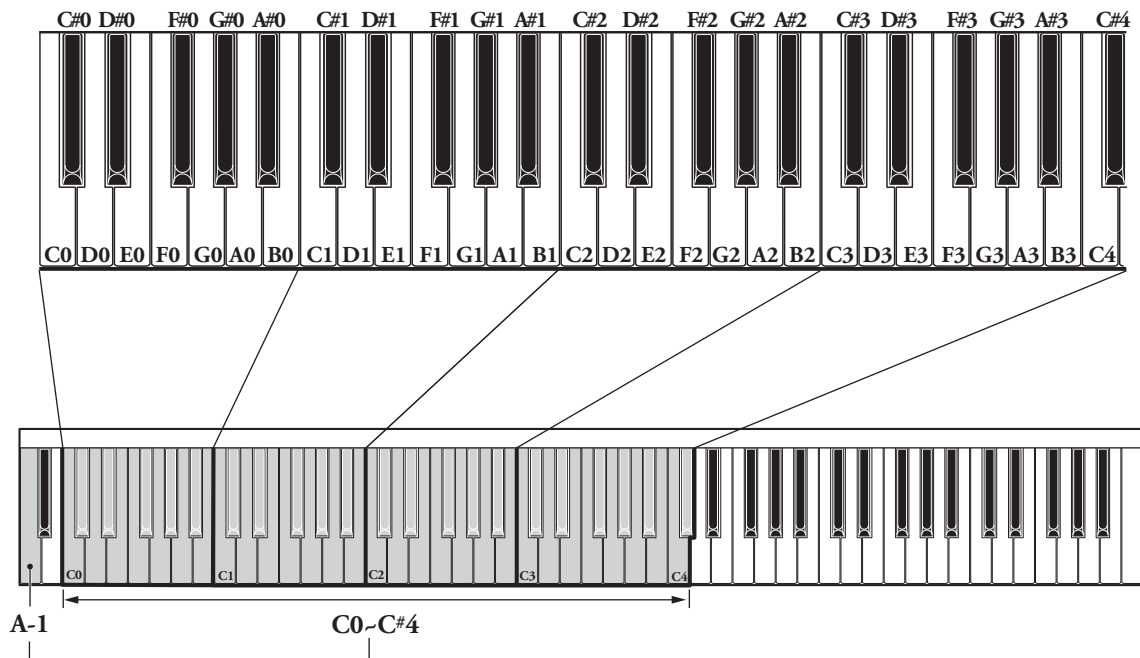
- The USB memory is damaged and cannot be accessed.
- Song data is damaged.
- A file is too big for the unit to read.
- The power was turned off while the unit was processing information, resetting internal memory to its default settings. Any song you recorded and stored in the internal memory of this unit has been erased. You cannot stop the error chime during the reset.
- The USB memory has insufficient space remaining and cannot save your song.
- The USB memory is write-protected.

Preset Voice List

Voice name	Assigned key	Explanation	Variation
Piano	C4	A sample taken from the Yamaha concert grand piano. This voice offers a broad range of expression, from a delicate pianissimo to an intense fortissimo, and reproduces the expansive feeling produced by the reverberation of the strings when you use the damper pedal.	There is no variation setting for piano. The left pedal provides a soft (shifted) pedal effect.
Harpsichord	D4	This voice is often used in baroque music. Volume and tone do not respond to changes in touch. This voice also provides a realistic reproduction of the sound produced when a key is released on a real harpsichord.	Sound from strings an octave above those you are playing is blended into the overall mix, for a brighter, more effusive sound.
Vibraphone	E4	A vibraphone struck with relatively light mallets.	A vibraphone with vibrato induced by rotating fans.
Pipe organ	F4	The magnificent pipe organ made famous by Bach's "Toccat and Fugue".	A relaxed principal-style organ of the type often used in church music from the Baroque era.
Celesta	G4	The keyboard-style glockenspiel renowned for its appearances in works such as "The Dance of the Sugar-Plum Fairy" from Tchaikovsky's "Nutcracker Suite". Its delicate music-box like sound is charming, and with a register one octave higher than that of a piano, the celesta allows you to enjoy the pleasures of the treble register.	Voice with a register adjusted to the same as the piano.
Strings	A4	A string section, redolent with atmosphere. This voice is very effective when used in dual mode together with the piano voice.	This variation reduces the attack of the sound slightly.
Electric piano 1	C#4	An electric piano voice from an FM synthesizer, of the kind often used in popular music. This voice is also effective when used in dual mode together with the piano voice.	A chorus effect adds an increased feeling of spaciousness to the sound.
Electric piano 2	D#4	A hammer-and-metal style piano voice, which responds dynamically to the player's touch from a soft tone when played gently to a lightly distorted tone when played with more force. This is used extensively in pop and jazz.	Adds a phaser effect to the tone for an increased feeling of spaciousness.
Jazz organ	F#4	A rotary organ voice used widely in jazz and rock.	Press the left pedal to switch the speed of the rotary speaker (vibrato) to high.
Choir	G#4	The sound of a choir singing in a large space. This voice is also effective when used in dual mode together with the piano voice.	This variation reduces the attack of the sound slightly.

Demonstration Song List

No. (Key)	Title / Composer	No. (Key)	Title / Composer
1 (C0)	Invention No. 1 / J. S. Bach	26 (C#2)	Etude op. 10-12 "Revolutionary" / F. F. Chopin
2 (C#0)	Invention No. 8 / J. S. Bach	27 (D2)	Valse op. 64-1 "Petit chien" / F. F. Chopin
3 (D0)	Gavotte / J. S. Bach	28 (D#2)	Valse op. 64-2 / F. F. Chopin
4 (D#0)	Prelude (Wohltemperierte Klavier I No. 1) / J. S. Bach	29 (E2)	Valse op. 69-1 "L'adieu" / F. F. Chopin
5 (E0)	Menuett G dur BWV. Anh. 114 / J. S. Bach	30 (F2)	Nocturne op. 9-2 / F. F. Chopin
6 (F0)	Le Coucou / L.-C. Daquin	31 (F#2)	Träumerei / R. Schumann
7 (F#0)	Piano Sonate No. 15 K. 545 1st mov. / W. A. Mozart	32 (G2)	Fröhlicher Landmann / R. Schumann
8 (G0)	Turkish March / W. A. Mozart	33 (G#2)	La Prière d'une Vierge / T. Badarzewska
9 (G#0)	Menuett G dur / W. A. Mozart	34 (A2)	Dolly's Dreaming and Awakening / T. Oesten
10 (A0)	Little Serenade / J. Haydn	35 (A#2)	Arabesque / J. F. Burgmuller
11 (A#0)	Perpetuum mobile / C. M. v. Weber	36 (B2)	Pastorale / J. F. Burgmuller
12 (B0)	Ecossaise / L. v. Beethoven	37 (C3)	La chevaleresque / J. F. Burgmuller
13 (C1)	Für Elise / L. v. Beethoven	38 (C#3)	Liebesträume Nr. 3 / F. Liszt
14 (C#1)	Marcia alla Turca / L. v. Beethoven	39 (D3)	Blumenlied / G. Lange
15 (D1)	Piano Sonate op. 13 "Pathétique" 2nd mov. / L. v. Beethoven	40 (D#3)	Barcarolle / P. I. Tchaikovsky
16 (D#1)	Piano Sonate op. 27-2 "Mondschein" 1st mov. / L. v. Beethoven	41 (E3)	Melody in F / A. Rubinstein
17 (E1)	Piano Sonate op. 49-2 1st mov. / L. v. Beethoven	42 (F3)	Humoresque / A. Dvorak
18 (F1)	Impromptu op. 90-2 / F. P. Schubert	43 (F#3)	Tango (España) / I. Albeniz
19 (F#1)	Moments Musicaux op. 94-3 / F. P. Schubert	44 (G3)	The Entertainer / S. Joplin
20 (G1)	Frühlingslied op. 62-2 / J. L. F. Mendelssohn	45 (G#3)	Maple Leaf Rag / S. Joplin
21 (G#1)	Jägerlied op. 19b-3 / J. L. F. Mendelssohn	46 (A3)	La Fille aux Cheveux de Lin / C. A. Debussy
22 (A1)	Fantaisie-Impromptu / F. F. Chopin	47 (A#3)	Arabesque 1 / C. A. Debussy
23 (A#1)	Prelude op. 28-15 "Raindrop" / F. F. Chopin	48 (B3)	Clair de lune / C. A. Debussy
24 (B1)	Etude op. 10-5 "Black keys" / F. F. Chopin	49 (C4)	Rêverie / C. A. Debussy
25 (C2)	Etude op. 10-3 "Chanson de l'adieu" / F. F. Chopin	50 (C#4)	Cakewalk / C. A. Debussy



After switching to the demonstration mode (page 19), hold down the A-1 key and press the key corresponding to the number you want to select.

MIDI Data Format (Program Change)

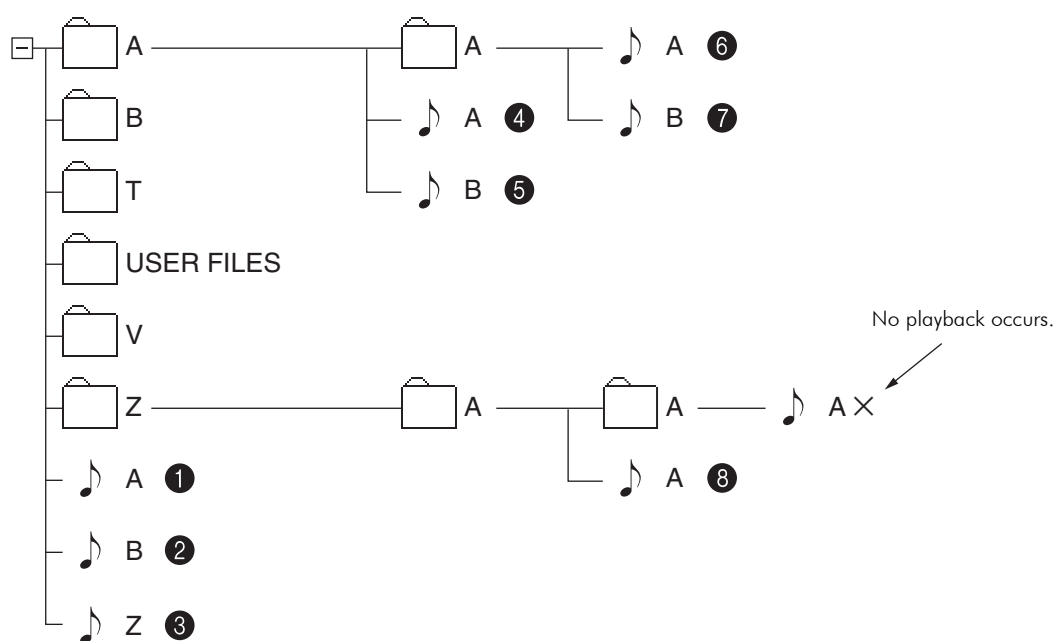
Voice name	MSB	LSB	P.C.#
Piano	0	112	1
Harpsichord	0	112	7
Harpsichord (Variation)	0	113	7
Vibraphone	0	112	12
Electric piano 1	0	112	6
Electric piano 2	0	112	5
Pipe organ	0	112	20
Pipe organ (Variation)	0	113	20
Celesta	0	112	9
Celesta (Variation)	0	113	9
Jazz organ	0	112	17
Strings	0	112	49
Strings (Variation)	0	113	49
Choir	0	112	53
Choir (Variation)	0	113	53

MSB, LSB (Bank Select), 0-127

P.C.# = Program Change Number, 1-128

MIDI File Playback Sequence

The illustration below shows the playback order when no “USERSONG**.MID” files are present, or the unit finds less than 50 songs after searching in the “USER FILES” folder. This unit looks for the MIDI files contained in root directory or other folders (up to two levels deep) in the order they were transferred to the USB memory.



Specifications

Keyboard		88 keys
Pedals		Damper pedal, Sostenuto/silencing pedal, Shift/soft pedal
Sensor System	Key Sensor	Noncontact continuous detection optical sensor
	Pedal Sensors	Damper pedal: continuous detection sensor Shift/soft pedal: ON/OFF detection sensor
Silencing System	Mechanism	Hammer shank stopper operated by silencing lever/pedal
	Action	Quick Escape mechanism
Internal Tone	Type	Advanced Wave Memory (AWM)
	Polyphony*	64-note / 32-note stereo sampling / 16-note with the damper pedal resonance effect
	Number of Voices	10
	Voices	Piano, Harpsichord, Vibraphone, Pipe organ, Celesta, Strings, Electric piano 1, Electric piano 2, Jazz organ, Choir
Functions		Headphone volume control
		Voice switch (10 voices)
		Voice variation switch
		Dual voice selection
		Brilliance adjustment (5 steps)
		Reverb type switch (Room, Hall 1, Hall 2, Stage)
		Reverb adjustment
		Pitch adjustment (–65 to +65 cent)
		DDE (damper pedal resonance effect) adjustment (5 steps)
		All reset
		Recording
		Playback
		Auto power-off
Demonstration Songs		50 greats for the Piano (preset)
Connectors	Audio	PHONES × 2, AUX IN, AUX OUT
	MIDI	MIDI IN, MIDI OUT
	Others	USB TO DEVICE, DC12V (upright), DC IN 12V (grand)
Power Consumption		DC 12 V 8W (when used with PA-150)
Supplied Accessories		AC adaptor (PA-150 or an equivalent recommended by Yamaha), Headphones, Headphones hanger, Attachment screws for headphones hanger, Owner's manual

* 64-note: Electric piano 2, Jazz organ

16-note: Pipe organ (excluding variation), Harpsichord (variation)

32-note: Voices other than the above